

In the Claims

Please cancel Claim 1 (without prejudice) and add the following new Claims 2-38 as follows:

Claim 1 (Currently Canceled).

2. (New) A monitoring device, comprising:
a sensor, said sensor detecting at least one condition within a building; and
a first ultra wideband carrier wave-less impulse radio unit interfaced with said sensor, said first ultra wideband carrier wave-less impulse radio unit transmitting an impulse radio signal containing sensor related information to a second ultra wideband carrier wave-less impulse radio unit interfaced with a control station, wherein said sensor related information is used by the control station to control at least one device associated with said building.
3. (New) The monitoring device of claim 2, wherein said at least one condition within the building is one of:
temperature,
smoke,
humidity,
dust,
gas,
presence of a person, or
motion.
4. (New) The monitoring device of claim 3, wherein said gas is carbon monoxide.
5. (New) The monitoring device of claim 3, wherein said person is an intruder.
6. (New) The monitoring device of claim 3, wherein said first ultra wideband carrier wave-less impulse radio unit implements radar capabilities of impulse radio technology to detect motion or detect the presence of the person .

7. (New) The monitoring device of claim 2, wherein said at least one device includes one of:

- a heating system,
- a cooling system,
- fire extinguishing equipment,
- a dust control system,
- a lighting system,
- an alarm,
- a dehumidifier system, or
- a humidifier system.

8. (New) The monitoring device of claim 7, wherein said fire extinguishing equipment is a sprinkler system.

9. (New) The monitoring device of claim 2, wherein said sensor is at least one of:

- a surveillance camera,
- a thermostat,
- a smoke detector,
- a humidity detector,
- a motion sensor,
- a dust detector,
- a gas detector, or
- a humidity detector.

10. (New) The monitoring device of claim 2, wherein said sensor is movable.

11. (New) A system for controlling at least one condition within a building, comprising:

- a sensor, said sensor detecting said at least one condition within said building;
- a first ultra wideband carrier wave-less impulse radio unit interfaced with said sensor, said first ultra wideband carrier wave-less impulse radio unit transmitting an impulse radio signal containing sensor related information;
- a second ultra wideband carrier wave-less impulse radio unit to receive said impulse radio signal; and

a control station, said control station interfaced with said second ultra wideband carrier wave-less impulse radio, wherein said control station uses said sensor related information to control at least one device associated with said building.

12. (New) The system of claim 11, wherein said at least one condition within the building is one of:

temperature,
smoke,
humidity,
dust,
gas,
presence of a person, or
motion.

13. (New) The system of claim 12, wherein said gas is carbon monoxide.

14. (New) The system of claim 12, wherein said person is an intruder.

15. (New) The system of claim 12, wherein said first ultra wideband carrier wave-less impulse radio unit implements radar capabilities of impulse radio technology to detect motion or the presence of the person.

16. (New) The system of claim 11, wherein said at least one device includes one of:
a heating system,
a cooling system,
fire extinguishing equipment,
a dust control system,
a lighting system,
an alarm,
a dehumidifier system, or
a humidifier system.

17. (New) The system of claim 16, wherein said fire extinguishing equipment is a sprinkler system.

18. (New) The system of claim 16, wherein said control station is configured as a control panel attached to said at least one device.

19. (New) The system of claim 11, wherein said sensor includes one of:
a surveillance camera,
a thermostat,
a smoke detector,
a motion sensor,
a dust detector,
a gas detector, or
a humidity detector.

20. (New) The system of claim 11, further comprising at least two reference ultra wideband carrier wave-less impulse radio units that interact with the first ultra wideband carrier wave-less impulse radio unit to enable a determination of the position of the sensor within the building, wherein the position of the sensor coupled with the sensor related information is used by the control station to control said at least one device.

21. (New) The system of claim 20, wherein said sensor is movable.

22. (New) The system of claim 11, wherein said sensor is a motion sensor, said at least one condition within the building is motion, and said at least one device is a lighting system.

23. (New) The system of claim 11, wherein said sensor is a smoke detector, said at least one condition within the building is smoke, and said at least one device is an alarm.

24. (New) The system of claim 11, wherein said sensor is a carbon monoxide detector, said at least one condition within the building is carbon monoxide, and said at least one device is an alarm.

25. (New) The system of claim 11, wherein said sensor is a dust detector, said at least one condition within the building is dust, and said at least one device is a dust control system.

26. (New) The system of claim 11, wherein said sensor is a humidity detector, said at least one condition within the building is humidity, and said at least one device is at least one of a dehumidifier system and a humidifier system.

27. (New) The system of claim 11, wherein said sensor is a thermostat, said at least one condition with the building is temperature, and said device is at least one of a heating system and a cooling system.

28. (New) The system of claim 27, further comprising at least two reference ultra wideband carrier wave-less impulse radio units that interact with the first ultra wideband carrier wave-less impulse radio unit to enable a determination of the position of the thermostat within the building, wherein the position of the thermostat coupled with the sensor related information is used by the control station to control said at least one of the heating system and the cooling system..

29. (New) The system of claim 28, wherein said thermostat is movable.

30. (New) A method of controlling at least one condition within a building, comprising the steps of:
detecting said at least one condition within said building;
transmitting an impulse radio signal containing sensor related information;
receiving said impulse radio signal, and
controlling at least one device associated with said building based upon said sensor related information.

31. (New) The method of claim 30, wherein said at least one condition within the building is one of:
temperature,
smoke,
humidity,
dust,
gas,
presence of a person, or

motion.

32. (New) The method of claim 31, wherein said gas is carbon monoxide.

33. (New) The method of claim 31, wherein said person is an intruder.

34. (New) The method of claim 31, further comprising the step of using radar capabilities of impulse radio technology to detect motion or to detect the presence of the person..

35. (New) The method of claim 30, wherein said at least one device includes one of:

a heating system,
a cooling system,
fire extinguishing equipment,
a dust control system,
a lighting system,
an alarm,
a dehumidifier system, or
a humidifier system.

36. (New) The method of claim 35, wherein said fire extinguishing equipment is a sprinkler system.

37. (New) The method of claim 30, wherein said detecting step is performed by at least one of:

a surveillance camera,
a thermostat,
a smoke detector,
a humidity detector,
a motion sensor,
a dust detector,
a gas detector, or
a humidity detector.

38. (New) The method of claim 30, further comprising the step of using position detection capabilities of impulse radio technology to determine a position of a sensor that performs the detecting step, wherein the position of the sensor coupled with the sensor related information is used in the controlling step to control said at least one device.